

REMARKS/ARGUMENTS

Status of the Application

Prior to the entry of this amendment, claims 1-21 were pending in this application. The Office Action objected to and/or rejected the following claims:

Claim 15 was objected to for lack of antecedent basis for the term “the tube”;

Claims 4-8, 18 and 21 were rejected under 35 U.S.C. § 112 second paragraph as being indefinite for use of the terms “essentially” and “sufficiently”;

Claims 1-5, 8, 11, 16, 17 and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by G.B. Patent No. 2261030 to Hardie (“Hardie”);

Claims 6, 7 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hardie in view of U.S. Patent Application No. 2002/0029888 to Swensen (“Swensen”); and

Claims 9, 10, 12-15 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hardie.

The present amendment amends claims 1, 2, 4, 5, 7-11, and 15-21. No new matter is added by the amendments to the claims. Applicants respectfully request reconsideration of this application as amended.

Claim Objections

In the Office Action, claim 15 was objected to for lack of antecedent basis for the term “the tube.” Applicants have amended claim 15 to replace the term “the tube” with the term “the conduit,” which has antecedent basis in the preceding claims from which it depends.

35 U.S.C. §112 Rejection

In the Office Action, claims 4-8, 18 and 21 were rejected under 35 U.S.C. § 112 second paragraph as being indefinite for use of the terms “essentially” and “sufficiently.” Applicants have amended the identified claims and removed the indefinite terms.

35 U.S.C. §102 Rejections

In the Office Action, claims 1-5, 8, 11, 16, 17 and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hardie. Applicants respectfully traverse these section 102 rejections.

As amended, independent claims 1 and 17 provide systems and methods for maintaining or reducing levels of liquids in a gas producing well using a conduit associated with a production pipe of the gas producing well, wherein the conduit is a discrete entity disposed between a constriction – the constriction being coupled with or located within the production pipe – and the liquids. As such, the discrete conduit provides a flow path from the liquids to a low pressure area where the low pressure area is created by production gas flowing upward through the constriction in the production pipe, and this flow path provides for flow of the liquids from the bottom section of the well into the production pipe. By contrast, the Hardie reference describes methods and systems for enhancing recovery of liquid hydrocarbons from a reservoir using a jet pump; it is not concerned with removing liquids from bottom sections of gas producing wells. As such, Hardie does not disclose many of the elements of independent claims 1 and 19, as amended, and in general does not disclose a system for transporting fluids in a bottom section of a gas producing well into a production pipe.

More specifically, Hardie does not disclose the following limitations of the independent claims as amended. First Hardie describes a twin pipe arrangement that extends from the reservoir to the well head (*see* Hardie page 8), it does not describe or teach using a discrete conduit associated with or disposed in a production pipe of a gas producing well, wherein the conduit is configured to create a flow path for liquids in the bottom section of the well from the level of the liquids to a low pressure zone associated with the production pipe.

Second, Hardie only teaches using gas provided from the surface to create a low pressure zone (*see* Fig. 2 and page 10), it does not disclose using production gas flowing upward into the production pipe to generate the low pressure zone. Moreover, with regard to independent claims 4-7, because Hardie does not describe or suggest the use of a discrete conduit associated with or within the production pipe it cannot and does not disclose an opening in the discrete conduit that allows for entry of formation gas into the discrete conduit.

Therefore, Applicants respectfully submit that independent claims 1 and 17, as amended, are not anticipated by and are novel over Hardie. Hence, it is respectfully requested that the section 102 rejections of independent claims 1 and 17 as amended be withdrawn. Additionally, it is respectfully requested that the section 102 rejection of all claims depending from independent claims 1 and 17 also be withdrawn.

35 U.S.C. §103 Discussion

Applicants respectfully traverse each and every one of the 35 U.S.C. § 103 rejections because the cited references do not teach or suggest all of the elements of independent claims 1 and 17, as amended. As discussed above, the Hardie reference does not teach or suggest an apparatus or method for removing liquids from the bottom section of gas producing wells that uses a discrete conduit extending between the liquids and a constriction associated with the production pipe to move the liquids up and into the production pipe. Nor does the reference teach or suggest using formation gas passing upwards from the reservoir into the production pipe to generate a low pressure zone. With regard to the Swensen reference, this reference concerns ground water extraction and makes absolutely no reference or suggestion regarding using production gas passing upward into a production pipe to generate a low pressure zone. Moreover, like Hardie, Swensen does not teach or suggest using a discrete conduit to move fluids at the bottom of a gas producing well into a gas production pipe or, as provided in claims 4-7, providing access to the discrete conduit for production gas flowing from the reservoir into the production pipe.

Consequently, the cited references taken singly and/or in combination do not teach or suggest all of the elements of the present invention. Hence, it is respectfully requested

Appl. No. 10/849,745
Amdt. dated July 5, 2006
Reply to Office Action of April 7, 2006

PATENT
Docket No.: 57.0498 US NP

that the section 103 rejections of independent claims 1 and 17 as amended be withdrawn. Additionally, it is respectfully requested that the section 103 rejection of all claims depending from independent claims 1 and 17 also be withdrawn.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

In the event that a fee or refund is due in connection with this Amendment, the Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No 19-0615. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (617) 252-4735.

Respectfully submitted,


Jody Lynn DeStefanis
Registration No. 44,653

Date: July 5, 2006
Jody Lynn DeStefanis
Schlumberger Doll Research
36 Old Quarry Road
Ridgefield, Connecticut 06877-4108
Phone: (617) 252-4735
Facsimile: (203) 431-5640